To: Walter Waldrop  
Product Manager 71  
Reregistration Division (7508W)

From: Anthony F. Maciorowski, Chief  
Ecological Effects Branch/EFED (7507C)

Attached, please find the EEB review of...

Reg./File # : 108501  
Chemical Name : Pendimethalin  
Type Product : Herbicide  
Product Name :  
Company Name : American Cyanamid Company  
Purpose : Requirement of 72-6 and reevaluation of 123-1b

Action Code : 001  
Date Due : 4/09/94  
Reviewer : Tracy L. Perry

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EEB Guideline/MRID Summary Table: The review in this package contains an evaluation of the following:

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Y = Acceptable (Study satisfied Guideline)  
P = Partial (Study partially fulfilled Guideline but additional information is needed)  
S = Supplemental (Study provided useful information but Guideline was not satisfied)  
N = Unacceptable (Study was rejected)  

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ATTN: Tracy Perry
Here is a bean sheet for you to give me a memo from your section chief to call in 72-6 with the justification. Also, I need the reason you do not agree with registrant regarding the NOEC for lettuce for guideline 123-1b. Any questions, call Jane Mitchell on 308-8061. Thanks, Jane

* * * DATA PACKAGE EVALUATION * * *
No evaluation is written for this data package

* * * ADDITIONAL DATA PACKAGES FOR THIS SUBMISSION * * *
DP BC BRANCH/SECTION DATE OUT DUE BACK INS CSF LABEL
MEMORANDUM

SUBJECT: Pendimethalin: Guideline Requirements 72-6 Aquatic Organism Accumulation and 123-1b Vegetative Vigor.

FROM: Anthony F. Maciorowski, Chief
Ecological Effects Branch
Environmental Fate and Effects Division (7507C)

TO: Walter Waldrop, PM 71
Reregistration Branch
Special Review and Reregistration Division (7508W)

In the Pendimethalin Registration Standard (March, 1985), Guideline 72-6 was reserved, pending the receipt of environmental fate data, for use patterns (i.e. rice) in which transportation of pendimethalin to water was expected. The existing environmental fate data indicate that pendimethalin has a relatively high potential to bioaccumulate in fish (BCF = 1400x, 5800x and 5100x for edible, nonedible and whole fish, respectively). However, prior to making a decision on whether to require the 72-6 Aquatic Organism Accumulation study, EEB would like to review the open literature to gather more information on relative bioaccumulation rates for a variety of pesticides and the correlation between bioaccumulation and biomagnification. Therefore, Guideline 72-6 should remain in reserve until further notice.

In EEB’s reevaluation of the Tier 2 vegetative vigor study, it was stated that lettuce must be repeated as the NOEC for dry weight was not determined (10/1/93). However, EEB’s response to NACA’s Rejection Rate Analysis regarding Subdivision J Nontarget Plant Phytotoxicity Tests (12/3/93) indicated that lack of a NOEC will not invalidate a study. For tests in which an EC₅₀ and an adequate dose response were obtained, the EC₅₀ will be used in instances where the NOEC could not be determined. As the test conducted with lettuce meets these requirements, the EC₅₀ will be used as the NOEC. Therefore, while the vegetative vigor test with lettuce remains supplemental, it provides sufficient information to fulfill guideline requirement 123-1b Vegetative Vigor.

If you have any questions, please contact Tracy Perry at 305-6451 or Henry Craven at 305-5320.